



## Safety Data Sheet according to (EC) No 1907/2006

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Loctite 496

SDS No. : 153541

V005.2

Revision: 16.07.2015

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Replaces version from: 24.03.2015

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Loctite 496

#### Contains:

Methyl 2-cyanoacrylate

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Adhesive

#### 1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000

Fax-no.: +44 1442 278071

ua-productsafety.uk@uk.henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (CLP):

Skin irritation

Category 2

H315 Causes skin irritation.

Serious eye irritation

Category 2

H319 Causes serious eye irritation.

Specific target organ toxicity - single exposure

Category 3

H335 May cause respiratory irritation.

Target organ: respiratory tract irritation

#### 2.2. Label elements

##### Label elements (CLP):

Hazard pictogram:



|                                                |                                                                                                                                                                                                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Signal word:</b>                            | Warning                                                                                                                                                                                                                |
| <b>Hazard statement:</b>                       | H315 Causes skin irritation.<br>H319 Causes serious eye irritation.<br>H335 May cause respiratory irritation.                                                                                                          |
| <b>Supplemental information</b>                | EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.                                                                                                                       |
| <b>Precautionary statement:<br/>Prevention</b> | P261 Avoid breathing vapours.<br>P280 Wear protective gloves/eye protection.                                                                                                                                           |
| <b>Precautionary statement:<br/>Response</b>   | P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P337+P313 If eye irritation persists: Get medical advice/attention. |
| <b>Precautionary statement:<br/>Disposal</b>   | P501 Dispose of waste and residues in accordance with local authority requirements.                                                                                                                                    |

### 2.3. Other hazards

None if used properly.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### General chemical description:

Cyanoacrylate Adhesive

#### Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components<br>CAS-No.    | EC Number<br>REACH-Reg No. | content   | Classification                                                     |
|------------------------------------|----------------------------|-----------|--------------------------------------------------------------------|
| Methyl 2-cyanoacrylate<br>137-05-3 | 205-275-2                  | 50- 100 % | Eye Irrit. 2<br>H319<br>STOT SE 3<br>H335<br>Skin Irrit. 2<br>H315 |

For full text of the H - statements and other abbreviations see section 16 "Other information".  
Substances without classification may have community workplace exposure limits available.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation:

Move to fresh air, consult doctor if complaint persists.

#### Skin contact:

Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water.

Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn.

Burns should be treated normally after the adhesive has been removed from the skin.

If lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth.

Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action.

**Eye contact:**

If the eye is bonded closed, release eyelashes with warm water by covering with wet pad.

Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive.

Keep eye covered until debonding is complete, usually within 1-3 days.

Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.

**Ingestion:**

Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).

**4.2. Most important symptoms and effects, both acute and delayed**

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

**4.3. Indication of any immediate medical attention and special treatment needed**

See section: Description of first aid measures

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**

**Suitable extinguishing media:**

Foam, extinguishing powder, carbon dioxide.

Fine water spray

**Extinguishing media which must not be used for safety reasons:**

None known

**5.2. Special hazards arising from the substance or mixture**

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) can be released.

In case of fire, keep containers cool with water spray.

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

**5.3. Advice for firefighters**

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

**6.2. Environmental precautions**

Do not let product enter drains.

**6.3. Methods and material for containment and cleaning up**

Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

**6.4. Reference to other sections**

See advice in section 8

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Ventilation (low level) is recommended when using large volumes

Use of dispensing equipment is recommended to minimise the risk of skin or eye contact

## Hygiene measures:

- Good industrial hygiene practices should be observed.
- Wash hands before work breaks and after finishing work.
- Do not eat, drink or smoke while working.

**7.2. Conditions for safe storage, including any incompatibilities**

For optimum shelf life store in original containers under refrigerated conditions at 2 - 8°C (35.6 - 46.4 °F)

**7.3. Specific end use(s)**

Adhesive

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure Limits**

Valid for  
Great Britain

| Ingredient [Regulated substance]                | ppm | mg/m <sup>3</sup> | Value type                        | Short term exposure limit category / Remarks | Regulatory list |
|-------------------------------------------------|-----|-------------------|-----------------------------------|----------------------------------------------|-----------------|
| Mecrilate<br>137-05-3<br>[METHYL CYANOACRYLATE] | 0,3 | 1,4               | Short Term Exposure Limit (STEL): |                                              | EH40 WEL        |

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

## Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A

## Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Polyethylene or polypropylene gloves are recommended when using large volumes.

Do not use PVC, rubber or nylon gloves.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

The use of chemical resistant gloves such as Neoprene or Natural Rubber is recommended

## Eye protection:

Wear protective glasses.

## Skin protection:

Wear suitable protective clothing.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                                              |                                    |
|----------------------------------------------|------------------------------------|
| Appearance                                   | liquid<br>Liquid<br>Colorless      |
| Odor                                         | Irritating                         |
| Odour threshold                              | No data available / Not applicable |
| pH                                           | No data available / Not applicable |
| Initial boiling point                        | > 149,0 °C (> 300.2 °F)            |
| Flash point                                  | 80,0 - 93 °C (176 - 199.4 °F)      |
| Decomposition temperature                    | No data available / Not applicable |
| Vapour pressure                              | < 0,3000000 mbar                   |
| Vapour pressure<br>(50 °C (122 °F))          | < 700 mbar                         |
| Density<br>(23,9 °C (75 °F))                 | 1,0900 g/cm3                       |
| Bulk density                                 | No data available / Not applicable |
| Viscosity                                    | No data available / Not applicable |
| Viscosity (kinematic)                        | No data available / Not applicable |
| Explosive properties                         | No data available / Not applicable |
| Solubility (qualitative)<br>(Solvent: Water) | Polymerises in presence of water.  |
| Solidification temperature                   | No data available / Not applicable |
| Melting point                                | No data available / Not applicable |
| Flammability                                 | No data available / Not applicable |
| Auto-ignition temperature                    | No data available / Not applicable |
| Explosive limits                             | No data available / Not applicable |
| Partition coefficient: n-octanol/water       | No data available / Not applicable |
| Evaporation rate                             | No data available / Not applicable |
| Vapor density                                | No data available / Not applicable |
| Oxidising properties                         | No data available / Not applicable |

**9.2. Other information**

No data available / Not applicable

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

Stable under normal conditions of storage and use.

**10.5. Incompatible materials**

None if used properly.

**10.6. Hazardous decomposition products**

None if used for intended purpose.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****General toxicological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**STOT-single exposure:**

May cause respiratory irritation.

**Oral toxicity:**

Cyanoacrylates are considered to have relatively low toxicity. Acute oral LD50 is >5000mg/kg (rat). It is almost impossible to swallow as it rapidly polymerises in the mouth.

**Inhalative toxicity:**

Prolonged exposure to high concentrations of vapours may lead to chronic effects in sensitive individuals  
In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system

**Skin irritation:**

Causes skin irritation.

Bonds skin in seconds. Considered to be of low toxicity: acute dermal LD50 (rabbit)>2000mg/kg

Due to polymerisation at the skin surface allergic reaction is unlikely to occur

**Eye irritation:**

Causes serious eye irritation.

Liquid product will bond eyelids. In a dry atmosphere (RH<50%) vapours may cause irritation and lachrymatory effect

**Acute oral toxicity:**

| Hazardous components<br>CAS-No.    | Value<br>type | Value         | Route of<br>application | Exposure<br>time | Species | Method                                   |
|------------------------------------|---------------|---------------|-------------------------|------------------|---------|------------------------------------------|
| Methyl 2-cyanoacrylate<br>137-05-3 | LD50          | > 4.440 mg/kg | oral                    |                  | rat     | OECD Guideline 423 (Acute Oral toxicity) |

**Acute dermal toxicity:**

| Hazardous components<br>CAS-No.    | Value<br>type | Value         | Route of<br>application | Exposure<br>time | Species | Method                                     |
|------------------------------------|---------------|---------------|-------------------------|------------------|---------|--------------------------------------------|
| Methyl 2-cyanoacrylate<br>137-05-3 | LD50          | > 2.000 mg/kg | dermal                  |                  | rabbit  | OECD Guideline 402 (Acute Dermal Toxicity) |

**Germ cell mutagenicity:**

| Hazardous components<br>CAS-No.    | Result    | Type of study /<br>Route of<br>administration          | Metabolic<br>activation /<br>Exposure time | Species | Method |
|------------------------------------|-----------|--------------------------------------------------------|--------------------------------------------|---------|--------|
| Methyl 2-cyanoacrylate<br>137-05-3 | ambiguous | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         |        |

**Repeated dose toxicity**

| Hazardous components<br>CAS-No.    | Result               | Route of<br>application | Exposure time /<br>Frequency of<br>treatment | Species | Method |
|------------------------------------|----------------------|-------------------------|----------------------------------------------|---------|--------|
| Methyl 2-cyanoacrylate<br>137-05-3 | NOAEL=> 200<br>mg/kg | oral: feed              | 90 ddaily                                    | rat     |        |

## SECTION 12: Ecological information

### General ecological information:

Biological and Chemical Oxygen Demands (BOD and COD) are insignificant.

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

### 12.1. Toxicity

#### Ecotoxicity:

Do not empty into drains / surface water / ground water.

### 12.2. Persistence and degradability

#### Persistence and Biodegradability:

No data available.

### 12.3. Bioaccumulative potential / 12.4. Mobility in soil

#### Mobility:

Cured adhesives are immobile.

#### Bioaccumulative potential:

No data available.

### 12.5. Results of PBT and vPvB assessment

No data available.

### 12.6. Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product disposal:

Cured adhesive: Dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.

Dispose of in accordance with local and national regulations.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

**SECTION 14: Transport information****14.1. UN number**

|      |                     |
|------|---------------------|
| ADR  | Not dangerous goods |
| RID  | Not dangerous goods |
| ADN  | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | 3334                |

**14.2. UN proper shipping name**

|      |                                                         |
|------|---------------------------------------------------------|
| ADR  | Not dangerous goods                                     |
| RID  | Not dangerous goods                                     |
| ADN  | Not dangerous goods                                     |
| IMDG | Not dangerous goods                                     |
| IATA | Aviation regulated liquid, n.o.s. (Cyanoacrylate ester) |

**14.3. Transport hazard class(es)**

|      |                     |
|------|---------------------|
| ADR  | Not dangerous goods |
| RID  | Not dangerous goods |
| ADN  | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | 9                   |

**14.4. Packaging group**

|      |                     |
|------|---------------------|
| ADR  | Not dangerous goods |
| RID  | Not dangerous goods |
| ADN  | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | III                 |

**14.5. Environmental hazards**

|      |                |
|------|----------------|
| ADR  | not applicable |
| RID  | not applicable |
| ADN  | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

**14.6. Special precautions for user**

|      |                                                                                                                     |
|------|---------------------------------------------------------------------------------------------------------------------|
| ADR  | not applicable                                                                                                      |
| RID  | not applicable                                                                                                      |
| ADN  | not applicable                                                                                                      |
| IMDG | not applicable                                                                                                      |
| IATA | Primary packs containing less than 500ml are unregulated by this mode of transport and may be shipped unrestricted. |

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**VOC content < 3,00 %  
(2010/75/EC)**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

## SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

### Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

### Label elements (DPD):

Xi - Irritant



### Risk phrases:

R36/37/38 Irritating to eyes, respiratory system and skin.

### Safety phrases:

S23 Do not breathe vapour.

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### Additional labeling:

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

**Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.**